

**Course Title:** Radiological Control Technician  
**Module Title:** Communication Systems  
**Module Number:** 2.02

**Objectives:**

- |         |   |
|---------|---|
| 2.02.01 | Explain the importance of good communication.   |
| 2.02.02 | Identify two methods of communication and be able to determine different types of each.                   |
| 2.02.03 | Describe different types of communication systems.  |
| 2.02.04 | Describe the FCC and DOE guidelines regarding proper use of communication systems.                        |
| 2.02.05 | Describe general attributes of good communications.   |
| 2.02.06 | Explain the importance of knowing how to contact key personnel.   |
| 2.02.07 | Identify the communication systems available at your site and methods available to contact key personnel. |
| 2.02.08 | Describe the emergency communication systems available at your site.                                      |

**Instructional Aids:**

1. Overheads
2. Overhead projector/screen
3. Chalkboard/whiteboard
4. Recommended - radio, telephone, pager, warning alarms, phonetic alphabet handout
5. Lessons learned

**I. MODULE INTRODUCTION****A. Self-Introduction**

1. Name
2. Phone number
3. Background
4. Emergency procedure review

**B. Motivation**

Good communication skills are essential to an RCT. Each RCT should develop an ability to communicate using both verbal and non-verbal media. This skill will ensure important information is transmitted to the proper individuals in a clear and concise manner.

**C. Overview of Lesson**

1. Importance of communication
2. Methods of communication
3. Communication systems
4. FCC and DOE guidelines
5. General attributes of good communications
6. Contact of key personnel
7. Site communication systems
8. Site emergency communications

**D. Introduce Objectives**

O.H.: Objectives

## II. MODULE OUTLINE

### A. Importance of Communications

Objective 2.02.01

1. Clear
2. Understood
3. Received

### B. Two Methods of Communication

Objective 2.02.02

1. Verbal
2. Nonverbal

Ask the student to name the two ways to communicate and examples.

### C. Communication Systems

Objective 2.02.03

1. Public Address
2. Telephones
3. Two-way Radios
4. Pagers
5. Computer Mail Systems
6. Computer Bulletin Boards

Ask students to name communication systems available in everyday use at home and work.

### D. FCC and DOE Guidelines Objective 2.02.04

1. When using communication systems licensed by the Federal Communications Commission and operated by the Department of Energy, one cannot: Stress importance of complying with these restrictions.
  - a. Use profane, indecent, or obscene language.

- b. Willfully damage or permit radio equipment damage.
- c. Cause malicious interference with any radio communications.
- d. Intercept and use or publish the contents of any radio message without the permission of the proper authorities.
- e. Make unnecessary or unidentified transmissions.
- f. Transmit without first making sure that the transmission will not cause harmful interference.
- g. Make any adjustments, repairs, or alterations to a radio transmitter without licensing by the FCC or acceptable equivalent.
- h. Transmit a call sign, letter, or numeral which has not been assigned to your station.
- i. Rebroadcast another transmission (ie radio station music).

#### E. General Attributes of Good Communications

- 1. Minimize the use of abbreviations and acronyms.
- 2. Make all oral instructions clear and concise.
- 3. Ensure the identity of the person(s) is/are clearly understood.
- 4. Use clear, precise terminology.
- 5. Repeat back messages, either paraphrased or verbatim.
- 6. Speak distinctly and deliberately.

#### Objective 2.02.05

Stress importance of good habits and technique.

See Table 1 - "Phonetic Alphabet and Numbers"



**IV. EVALUATION**

Evaluation should consist of a written examination comprised of multiple choice, fill-in the blank, matching and/or short answer questions. 80% should be the minimum passing criteria for examinations.